

Acton Public Schools/Acton-Boxborough Regional School District



CASE STUDY

BACKGROUND

Recipients of several recent energy awards, the Acton Public Schools (APS) and Acton-Boxborough Regional School District (ABRSD) set off down the road of clean energy leadership in September 2010, when the newly-designated Green Community of Acton opted to use \$25,000 of its \$150,794 Green Communities grant to seed a school-based behavioral modification program aimed at cutting energy waste in the district's seven schools. The grant financed the salary of a part-time energy advisor, and leveraged additional support from NSTAR. Based on its success, the "[Power Down](#)" Initiative was added as a permanent part of the ABRSD annual budget beginning in July 2012, and Energy Advisor Kate Crosby became a full-time member of the school district's staff.

ACTIONS

"Power Down" is a concerted effort to encourage all K-12 students, faculty, and staff to think—and act—smarter about energy use. Project components include:

- ♦ Student use of Kill-a-Watt meters to measure electricity consumption in classrooms and offices;
- ♦ "Power Down Fridays," during which students fan out around school buildings to hang green door tags on classrooms and offices reminding faculty and staff to turn off electronics before weekends and holiday periods, and then follow up with assessments and feedback;
- ♦ Student delivery and installation of power strips to make it easier for staff members to power down equipment;
- ♦ Original student artwork created around light switch plates, reminding everyone to turn out the lights when a room is empty.

Related projects include system-wide energy usage tracking to identify savings opportunities and an exterior lighting retrofit.

The Acton Public Schools and Acton-Boxborough Regional School District comprise five elementary schools, as well as the middle and high schools.
<http://ab.mec.edu>

Acton Public Schools/Acton-Boxborough Regional School District At-a-Glance:

Population (approx.)

- ♦ Acton: 21,230
- ♦ Boxborough: 5,200

Student Enrollment (2011)

- ♦ Acton Public: 2,501
- ♦ Acton-Boxborough: (2,968)

RESULTS

- ♦ Helped the ABRSD/APS schools to reduce their collective electricity consumption by 13 percent over the last two years, while providing an immeasurable impact on the environmental awareness of Acton-Boxborough students and, through them, the community at large
- ♦ Resulted in greater than \$70,000 in savings to the district in the first year alone (FY 2011)—a nearly three-to-one return on DOER's Green Communities grant investment
- ♦ Cut high school electricity consumption by 5.5 percent in FY 2011, with FY 2012 savings projected at 14.5 percent. This represents a cost savings of \$77,000 for FY 2012 electricity for the high school alone (savings achieved through "Power Down" and behavioral changes; no mechanical projects or capital investments)
- ♦ Received three awards in 2012: a Secretary's Award for Excellence in Energy and Environmental Education from the Massachusetts Executive Office of Energy and Environmental Affairs; a Green Flag award—only the fourth to be awarded in the United States (Green Flag is an international schools sustainability program hosted in the US by the National Wildlife Federation through Eco-Schools USA); and a national award from the National Energy Education Development Project (NEED)

RECOMMENDATIONS

"It's possible for any school to find these savings," says ABRSD Energy Advisor Kate Crosby.

She and APS/ABRSD Director of Facilities & Transportation JD Head point to the value of engaging the entire school community in order to gain support for and maximize the effectiveness of a behavioral-based energy conservation project. Particularly important players for the "Power Down" project included school principals, key faculty supporters, and custodians, who partnered with students to keep the initiative going on a daily basis. Building enthusiasm among students is also critical, since they not only carried out many of the activities, but will also carry these lessons forward.

Says Crosby: "A big payoff here is engaging students. They take this learning home and it impacts what happens residentially, and they also take it forward as future policy-makers."